4-Port Dual View HDMI Switch

VS482

User Manual

www.aten.com

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected;
- Consult the dealer/an experienced radio/television technician for help.

RoHS

This product is RoHS compliant.

SJ/T 11364-2006

The following contains information that relates to China.

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
电器部件	●	○	○	○	○	○
机构部件	○	○	○	○	○	○

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006规定的限量要求之下。

●: 表示符合欧盟的豁免条款，但该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。

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User Information

Online Registration

Be sure to register your product at our online support center:

International	http://eservice.aten.com

Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-10-5255-0110
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988
United Kingdom	44-8-4481-58923

User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed *as is*. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

Package Contents

The VS482 4-Port Dual View HDMI Switch package consists of:

- 1 VS482 4-Port Dual View HDMI Switch
- 1 IR Remote Control Unit
- 1 Power Adapter
- 1 User Instructions
- 1 Mounting kit

Check to make sure that all the components are present and that nothing got damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

***** Features may have been added to the VS482 since this manual was printed. Please visit our website to download the most up-to-date version.

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About this Manual

This User Manual is provided to help you get the most from your VS482 system. It covers all aspects of installation, configuration and operation. An overview of the information found in the manual is provided below.

Introduction, introduces you to the VS482 system. Its purpose, features and benefits are presented, and its front and back panel components are described.

Hardware Setup, describes how to set up your VS482 installation. The necessary steps are provided.

Operation, explains the fundamental concepts involved in operating the VS482 via the front panel pushbuttons, remote controlled On-Screen Display (OSD), or through the RS-232 serial interface.

An Appendix, provides specifications and other technical information regarding the VS482.

Conventions

This manual uses the following conventions:

`Monospaced`	Indicates text that you should key in.
[ ]	Indicates keys you should press. For example, [Enter] means to press the **Enter** key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt].
1.	Numbered lists represent procedures with sequential steps.
♦	Bullet lists provide information, but do not involve sequential steps.
→	Indicates selecting the option (on a menu or dialog box, for example), that comes next. For example, Start → Run means to open the *Start* menu, and then select *Run*.
	Indicates critical information.

Product Information

For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	http://www.aten.com
North America	http://www.aten-usa.com

Chapter 1
Introduction

Overview

With more and more HDMI devices entering the Home Theater market, the need for simultaneous access to different HDMI sources is becoming increasingly important. Now, the VS482 4-Port Dual View HDMI Switch offers an easy and affordable way to add HDMI capabilities to your home theater system by allowing you to switch easily between up to four HDMI sources that are connected to up to two HDMI displays.

The VS482 supports four HDMI input sources and two HDMI output displays. It is designed for two HDTV, audio/video receiver (AVR) or HD projector display applications. The VS482 complies with HDMI standards, and is designed to support 3D content, as well as featuring Audio Return Channel (ARC) functionality. The VS482 also offers fast switching and has OSD display controls for video, audio, system configuration and information.

With four HDMI input ports, the VS482 allows you to connect four HDMI devices (such as an HD camcorder, satellite box, HD-DVD player, hi-def Blu-ray player, home theater PC, stand-alone streaming media player, or gaming console) to two HDMI monitors, displays, projectors or TVs at the same time. The remote control and convenient front panel pushbuttons allow you to quickly and easily toggle between HDMI sources, while the front panel LEDs indicate the source device at a glance.

Furthermore, for complete system and install integration, RS-232 control is standard through the VS482's built-in bi-directional RS-232 serial remote port that allows the switch to be controlled through a Control Unit, PC, and/or home automation / home theater software package.

Features

- Allows up to four HDMI sources to be connected to two HDMI displays
- Easy and affordable way to add four HDMI inputs to your home theater system
- HDCP 1.2 compatible
- Supports HDMI (3D, Audio Return Channel and deep color)
- Audio Return Channel (ARC) function – connect an HDMI cable to the ARC port to send audio from your source device to your audio/video receiver
- Instant switching between HDMI input sources via front panel pushbuttons or through the RS-232 serial control port
- Features EDID Expert technology to set up different configurations via different EDID modes
- Allows users to view the HDMI input source port/device for easy selection
- On-Screen Display (OSD) for system configuration settings and information display
- Built-in bi-directional RS-232 serial control port for high-end system control

Note: The AP and GUI operation instructions can be downloaded from the ATEN website (www.aten.com).

- IR control signal extension – extend the reach of the IR controller by adding an IR receiver unit (IR receiver can be purchased separately)
- Consumer Electronics Control (CEC) allows interconnected HDMI devices to communicate and respond to one remote control
- Superior video quality – HDTV resolutions of 480p, 720p, 1080i, 1080p (1920x1080); VGA, SVGA, SXGA, UXGA, and WUXGA (1920 x 1200)

- Supports multi-channel audio 2/5.1/ 7.1
- Power On Detection – if the active HDMI input source device is powered off (LED is off), the VS482 automatically switches to the next powered on input source device
- Extracts audio from HDMI input signal that supports both optical and coaxial digital audio and one stereo audio output
- Rack mountable, all-metal casing
- Plug-and-play – no software installation required
- DDC compatible
- LED indication of HDMI source devices

Requirements

The following equipment is required for a complete VS482 installation:

Source Device

- HDMI Type A output connector(s)

Note: A DVI/HDMI adapter is required when connecting a DVI source device.

Display Device

- Up to 2 display devices or receivers with an HDMI Type A input connector

Cables

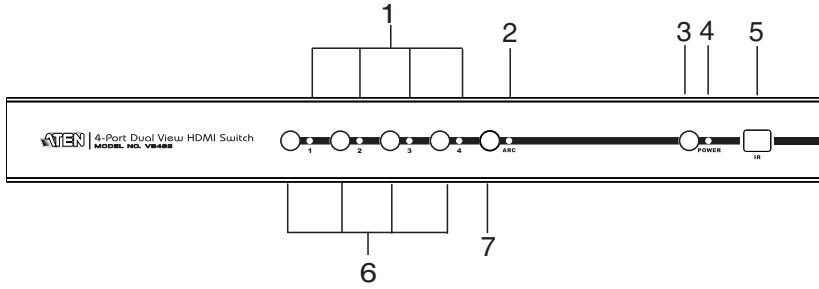
- 4 HDMI cables

Note: 1. No cables are included in this package. We strongly recommend that you purchase high-quality cables of appropriate length since this will affect the quality of the audio and video display. Contact your dealer to purchase the correct cable sets.

2. If you wish to utilize the VS482's high-end serial controller function, you will also need to purchase an appropriate RS-232 cable. See *Installing the RS-232 Controller*, page 12.

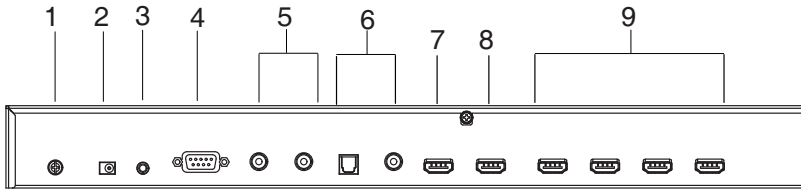
Components

Front View



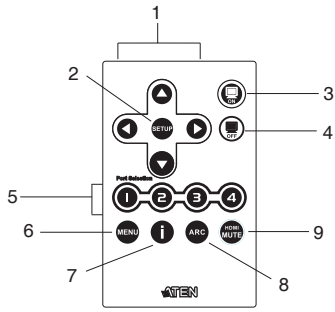
No.	Component	Description
1	Port LEDs	The SELECTED port's LED (bottom, green) lights up to indicate that the port is selected.
2	ARC LED	The LED (blue) lights up when the ARC function is enabled.
3	Power Pushbutton	Press this button to turn on / off the switch.
4	Power LED	◆ The LED (green) lights up when the switch is powered on. ◆ The LED (orange) lights up to indicate that the switch is in standby mode.
5	IR Receiver	This receives signals from the IR remote control.
6	Port Selection Pushbuttons	Pressing a port selection pushbutton routes the A/V source from the corresponding input port to the output port for display.
7	ARC button	Press this button to enable / disable the ARC function.

Rear View



No.	Component	Description
1	Grounding Terminal	The grounding wire (used to ground the unit) attaches here. **Note:** The grounding wire is not included in this package. Contact your dealer for more information.
2	Power Jack	The power adapter cable plugs in here.
3	IR Extender Port	Connect the IR Extender to this port. **Note:** The additional IR receiver can be purchased separately.
4	RS-232 Serial Port	This is the serial remote port for input source selection and high-end system control, including firmware upgrade.
5	Stereo Audio Ports	The red port is for the right audio channel, and the white port is for the left audio channel.
6	Digital Audio Ports	Connect the optical and coaxial audio cables to these ports.
7	HDMI Out (port 2)	The cable from the HDMI display or receiver device plugs in here.
8	HDMI Out (port 1) (ARC In)	◆ The cable from the HDMI display device or receiver plugs in here. ◆ Connect the ARC audio input connector or receiver to this port. The ARC audio can be transmitted back (to audio receivers) through this connectivity
9	HDMI In	The cables from the HDMI source devices can plug into any of four available ports.

IR Remote Control



No.	Component	Description
1	Up / Down / Left / Right Buttons	Press the Up / Down / Left / Right button to cycle through the OSD menu/selection.
2	Setup	Press this to confirm the selection on the OSD screen.
3	On	Press this to power on the display.
4	Off	Press this to power off the display.
5	Port Selection Buttons 1~4	Press a button to bring the focus directly to the source device attached to its associated port.
6	Menu	Press this to enable / disable the OSD menu.
7	Info button	Press this button to display information about the source device on the upper left side of the screen. The information can include: Source port number; Source port number + Source Type; or turned off.
8	ARC	Enable / Disable ARC function. See *ARC Commands*, page 20.
9	HDMI Mute	Enable / Disable audio for the output HDMI port. See *Mute Commands*, page 19.

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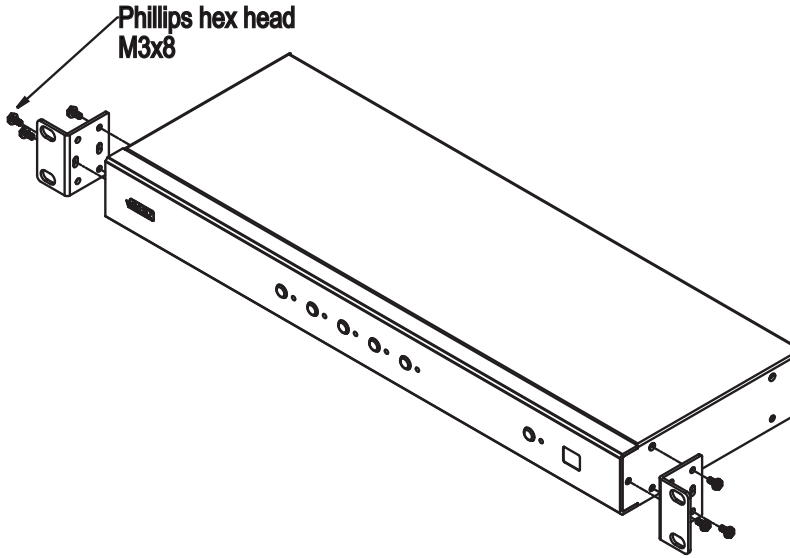
Chapter 2
Hardware Setup

1. Important safety information regarding the placement of this device is provided on page 31. Please review it before proceeding.
2. Make sure that the power to all devices connected to the installation are turned off.
3. Make sure that all devices you will be installing are properly grounded.

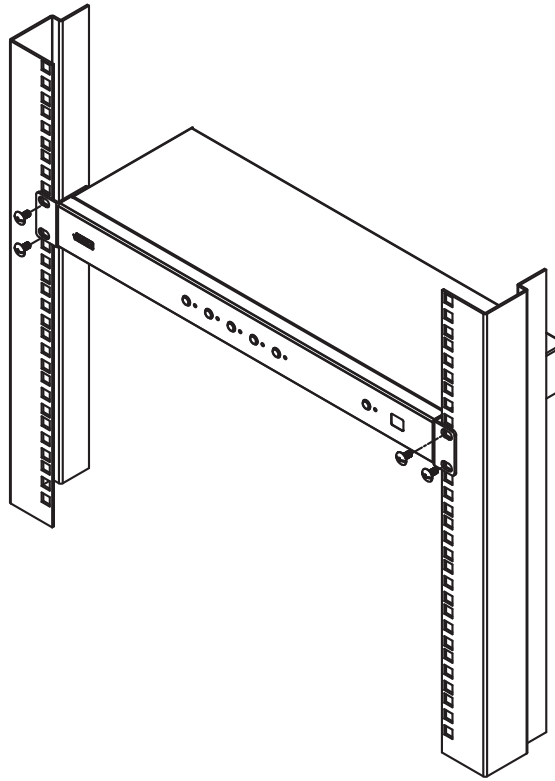
Rack Mounting

For convenience and flexibility, the VS482 can be mounted on system racks. To rack mount a unit do the following:

1. Using the screws provided in the Mounting Kit, screw the mounting bracket into the side of the unit as show in the diagram below:



2. Screw the bracket into any convenient location on the rack.



Note: These screws are not provided. We recommend that you use M5 x 12 Phillips Type I cross, recessed type screws.

Grounding

To prevent damage to your installation it is important that all devices are properly grounded.

1. Use a grounding wire to ground the VS482 by connecting one end of the wire to the grounding terminal, and the other end of the wire to a suitable grounded object.

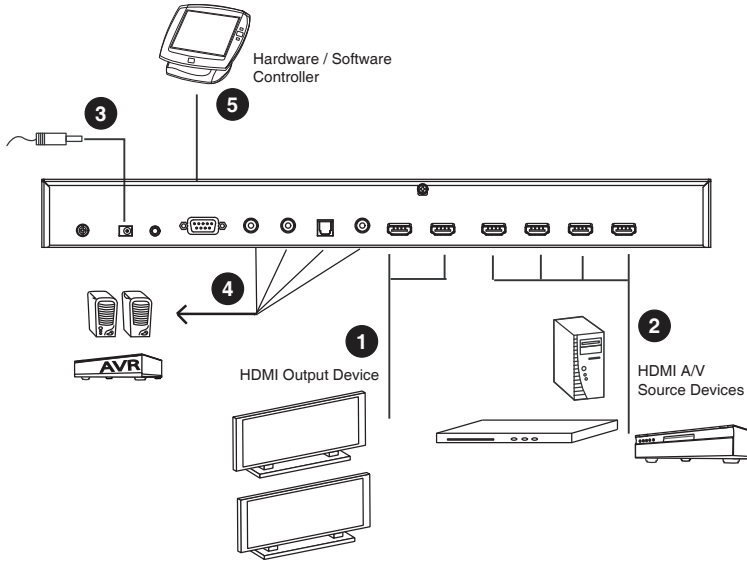
2. Make sure that the computer(s)/device(s) that the VS482 connects to are properly grounded.

Installation

Installation of the VS482 is simply a matter of plugging in the appropriate cables.

To install the switch, refer to the installation diagram below as you perform the following steps:

1. Use an HDMI cable to connect the HDMI input port on the video display device to the HDMI output port on the rear of the VS482.
2. Use HDMI cables to connect the HDMI output ports on the source device(s) to the HDMI input ports on the VS482.
3. Plug the provided power adapter into an appropriate AC power source; plug the power adapter cable into the Power Jack on the VS482.
4. Connect your audio devices (such as speakers or AVRs) to the Stereo Audio Ports or Digital Audio Ports.
5. (Optional) To edit the VS482 system settings through the RS-232 port, connect the hardware / software controller here.



This completes the basic installation of the 4-Port Dual View HDMI Switch. You may now power on the display and source devices.

Installing the RS-232 Controller

In order to use the RS-232 serial interface to attach a high-end controller (such as a PC) to the VS482, use a serial cable such as a modem cable. The end connecting to the VS482 should have a 9-pin male connector. Connect this to the serial interface on the rear of the VS482. Refer to number **5** on the previous diagram.

Note: To configure the controller serial port, see page 17.

Chapter 3
Operation

Overview

The 4-Port Dual View HDMI Switch offers easy and flexible source device selection with either the front panel pushbuttons, with the remote control, or through the RS-232 serial interface.

Note: 1. Whenever the VS482 is powered on and there is no video input source connected, it automatically selects Port 1 as the active port (i.e., the Port 1 LED lights up). You may choose one of the methods outlined below to select a different port as your active port.

2. The VS482 takes about 10-20 seconds to boot up the system and apply the system configuration when first powered on.

Manual Selection

To select a source device, press the pushbutton that corresponds to the port to which it is connected.

Note: The Port LED (green) light indicates which port is currently selected.

Remote Control Selection

To select a source device with the remote control, press the number button that corresponds to the port to which it is connected.

See *IR Remote Control*, page 7 for more details.

Note: Aim the remote control unit at the IR receiver located on the front panel of the VS482. For optimum performance, make sure there is a clear line-of-sight between the remote control unit and the IR receiver.

Power On Detection

The Power On Detection feature enables the VS482 to do the following:

- It automatically switches to the next port with a powered on source device connected when the current active port is powered off.
- When the VS482 is turned on, the least numbered port with a video input source connected acts as the active port. To select another port, see *Manual Selection*, page 13.

If you have manually selected an active port, and the video input source device is disconnected (but not powered off), the VS482 does not use any other powered on video input source device.

Note: 1. Whenever the VS482 is powered on and there is no video input source connected, it automatically selects Port 1 as the active port (i.e., the Port 1 LED lights up).

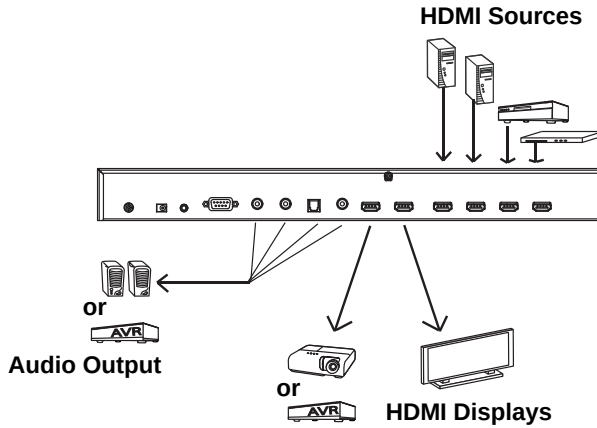
2. Some video sources/devices may use a different Hot Plug Detect (HDP) implementation that prevents the Power On Detection feature from working properly.

Audio Return Channel (ARC)

Audio Return Channel (ARC) allows an HDMI source device that receives content via air waves (such as a TV or STB connected to a satellite antenna) to send audio “upstream” to your HDMI display devices using only one HDMI cable.

Initial Setup

The VS482 supports dual HDMI output for dual view, such as two HDTV or audio/video receiver (AVR) applications, as shown in the following diagram.



The audio/video coming from the HDMI sources (Blu-ray, DVD, etc.) are received by the VS482 and then passed on to the HDMI displays (TV, projector or AVR).

However if the HDMI audio or video is coming from the TV (through a satellite antenna or STB), you can enable ARC so that audio is sent to the AVR/ HDMI receiver through the HDMI cable or the device(s) connected to the audio output port(s). See p. 16 for the diagram.

Note: 1. Without ARC, you must connect another cable, specifically for passing audio, from the TV to the AVR or the device(s) connected to the audio output port(s).

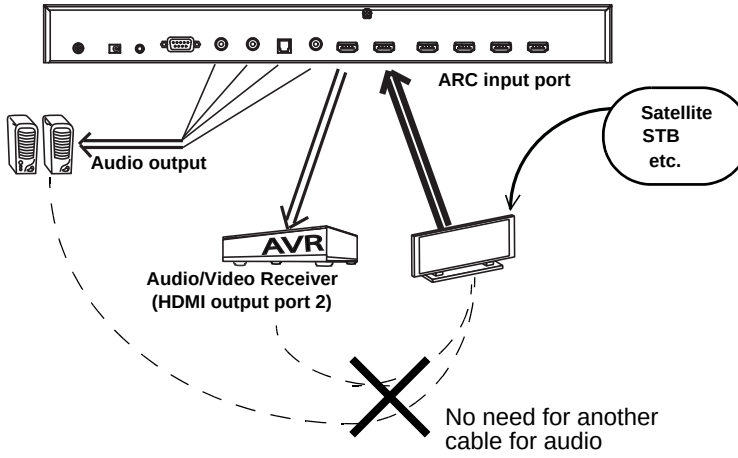
2. The ARC function requires HDTV built-in ARC function and connect to the correct HDMI output port. Check your HDTV’s user manual for this information.

Enabling ARC

With ARC enabled, the TV can act as the HDMI source and send audio "upstream" to the AVR or speakers connected to the HDMI output ports of the VS482.

Note: The HDMI output port 1 is also the ARC input port, depending on whether the ARC feature is enabled or disabled. See *ARC Commands*, page 20 for more information.

In the following diagram, audio from the TV goes to the VS482 through the ARC Input port, and is then passed on to the AVR via the HDMI cable or the audio devices connected to the HDMI output ports. A user can also connect to an audio device (receiver) using an optical or coaxial audio connector.



Note: 1. The scenario above works only if the TV supports HDMI and have ARC enabled..

2. The ARC LED (blue) lights up to indicate that the ARC function is enabled. There is no audio output if your HDTV does not support ARC function or if the ARC function is not enabled.

RS-232 Serial Interface

The VS482's built-in bi-directional RS-232 serial interface allows system control through a high-end controller, PC, and/or home automation / home theater software package.

Configuring the Serial Port

The controller's serial port should be configured as follows:

Baud Rate	19200
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

Switch Port Commands

The formulas for Switch Port commands are as follows:

1. Switch Command + Input Command + Port number [Enter]

For example, to switch input port to port 02, type the following:

sw i02 [Enter]

2. Switch Command + Control [Enter]

For example, to switch to the next port, input the following:

sw + [Enter]

The following tables show the possible values and formats for the **Input** command, **Port Number** and **Control**:

Command	Description
sw	Switch command

Input Command	Description
i	Input command

Port number	Description
xx	01-04 port (default is 01)

Control	Description
on	Turn on the display
off	Turn off the display
+	Next Port
-	Previous Port

Note: 1. Each command string can be separated with a space.

2. The **Port Number** command string can be skipped, and the default value will be used.

The following table shows the available command list:

Command	Input	Port	Control	Enter	Description
sw	i	xx		[Enter]	Switch Input Port
sw			on	[Enter]	Turn on (Display out)
			off	[Enter]	Turn off (No output)
sw			+	[Enter]	Switch to the next input
			-	[Enter]	Switch to the previous input

Mute Commands

Enable or disable audio coming from the output HDMI port using the following command:

Mute Command + Control [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
mute	Enable / Disable audio of HDMI output port

Control	Description
on	Mute on; audio from HDMI output port is disabled
off	Mute off; audio output enabled (default)

Note: Each command string can be separated with a space.

The following table shows the available command list:

Command	Control	Enter	Description
mute	on	[Enter]	Mute on (no audio)
mute	off	[Enter]	Mute off (audio out)

ARC Commands

Audio Return Channel (ARC) allows a source device (TV, STB, etc.) to send audio “upstream” to an audio/video receiver using only one HDMI cable. The formula for enabling/disabling ARC is as follows:

ARC Command + Control [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
arc	Enable / Disable ARC

Control	Description
on	ARC on; output audio passes from HDMI output port 1 to HDMI output port
off	ARC is disabled (default)

The following table shows the available command list:

Command	Control	Enter	Description
arc	on	[Enter]	ARC on
arc	off	[Enter]	ARC off

EDID Commands

Extended Display Identification Information (EDID) is a data format that contains a display's basic information and is used to communitcate with the video source/system. You can set up which EDID mode the VS482 uses with the following command:

EDID Command + Control [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
edid	Enable EDID selection

Control	Description
port1	Implement the EDID of the connected display to Port 1, and pass it to the video source
auto	Implement the EDID of all connected displays. The VS482 uses the best resolution for all displays (default).
default	Implements ATEN's default EDID

The following table shows the available command list:

Command	Control	Enter	Description
edid	port1	[Enter]	The EDID from Port 1 is passed to the video source
edid	auto	[Enter]	The VS482 implements the EDID of all connected displays and uses the best resolution for all displays (default)
edid	default	[Enter]	ATEN's default EDID is passed to the video source

CEC Commands

Consumer Electronics Control (CEC) allows interconnected HDMI devices to communicate and respond to one remote control. The formula for CEC mode selection commands is as follows:

CEC Command + Control [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
cec	Enable CEC selection

Control	Description
off	Disable CEC (default)
auto	Apply the video source's CEC to all display output
port1	Apply the video source's CEC only to port 1

The following table shows the available command list:

Command	Control	Enter	Description
cec	off	[Enter]	CEC off (default)
cec	auto	[Enter]	Connect the video source's CEC with all display output
cec	port1	[Enter]	Apply the video source's CEC only to port 1

Power On Detection (POD)

The Power On Detection feature is turned on by default.

The formula for Power On Detection commands is as follows:

Power On Detection + Control command [Enter]

For example, to turn off the Power On Detection feature, input the following:

pod off [Enter]

The following tables show the possible values and formats for the **Control** command:

Command	Description
pod	Power On Detection command

Control	Description
on	Turn on (default)
off	Turn off

Note: Each command can be separated with a space.

The following table shows the available command list:

Command	Control	Enter	Description
pod	on	[Enter]	POD enabled (default)
pod	off	[Enter]	POD disabled

Verification

After entering a command, a verification message appears at the end of the command line as follows:

- **Command OK** - indicates that the command is correct and successfully performed by the switch
- **Command incorrect** - indicates that the command has the wrong format and/or values.

Powering Off and Restarting

If you power off the VS482, follows these steps before powering it on again:

1. Power off the attached devices.
2. Unplug the power adapter cable from the VS482.
3. Wait 10 seconds, and then plug the power adapter cable back in.
4. After the VS482 is powered on, power on the attached devices.

OSD Menu

Use the **MENU** pushbutton on the remote control to view the OSD menu and cycle through the options in the order shown in the table below. See *IR Remote Control*, page 7 for details on how to use the remote control.

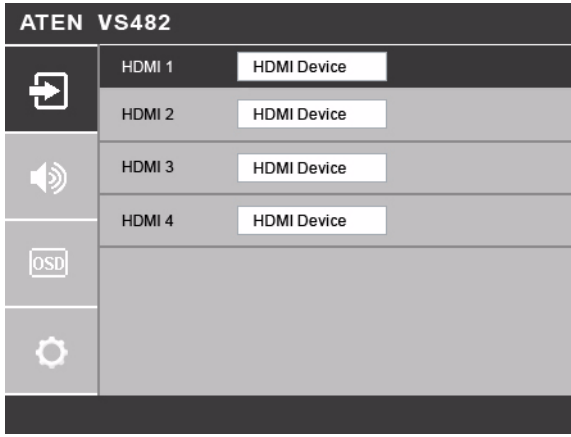
Menu Page	Sub-Menu Page(s)	
Input Setting	HDMI 1	**HDMI device** / Blu-ray player / DVD player / Game Console / Set Top Box / Portable Device / PC
	HDMI 2	**HDMI device** / Blu-ray player / DVD player / Game Console / Set Top Box / Portable Device / PC
	HDMI 3	**HDMI device** / Blu-ray player / DVD player / Game Console / Set Top Box / Portable Device / PC
	HDMI 4	**HDMI device** / Blu-ray player / DVD player / Game Console / Set Top Box / Portable Device / PC
Audio Setting	ARC	**Disable** / Enable
	Audio Channel	**AUTO** / Stereo / 5.1 Channel / 7.1 Channel
	HDMI Audio Output	**On** / Off
OSD Setting	Message Display Mode	**Channel** / Full / Off
	Transparency	0 ~100 (default is **75**)
System Setting	EDID	**Auto** / Port1 / Default
	CEC	**Off** / Auto / Port1
	Reset to Default	**On** / Off
	Version	Version Number

Note: 1. The highlighted texts indicate the VS482's default setting.

2. The OSD function is disabled while 3D content is being displayed. Switch to 2D content or a different input port to enable the OSD.

Input Setting Menu

Use this screen to select the video source device(s) for the HDMI input port(s).



1. Use the drop-down menu to select a video source device for HDMI 1 input port. Options are as follows.

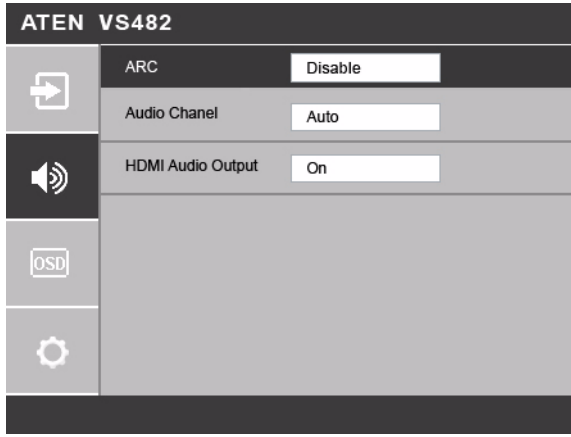
HDMI Device
Blu-ray Player
DVD Player
Game Console
Set Top Box
Portable Device
PC

Note: The default value **HDMI Device** does not point to any device. It means there is no video source selected for that HDMI input port.

2. Do the same for HDMI 2 to HDMI 4 input ports.

Audio Setting

Use this screen to configure the VS482 audio settings.



1. Use the drop-down menu to **Enable** or **Disable** ARC on the VS482. See *Audio Return Channel (ARC)*, page 15 for more details on this feature.

Disable
Enable

2. Use the drop-down menu to select which audio channel receiver the VS482 uses. The default value is **Auto**.

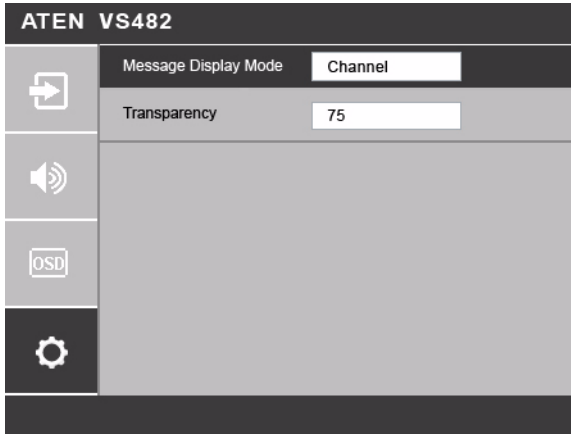
Auto
Stereo
5.1 Channel
7.1 Channel

3. Use the drop-down menu to turn on/off the audio coming from the HDMI output port(s). Select **On** to enable audio from the active HDMI output port, and select **Off** to disable it.

On
Off

OSD Setting

Use this screen to configure the VS482 OSD settings.



1. Use the drop-down menu to select which display mode the VS482 uses to display information in the upper left corner of the screen. Options are as follows.

Channel
Full
Off

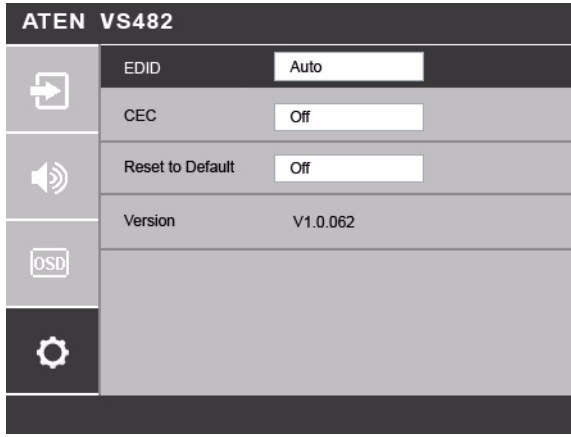
   - **Channel** - This shows the source port number.
   - **Full** - This shows the source port number and source type. See *Input Setting Menu*, page 26 for the list of source types.
   - **Off** - There is no information shown.

2. Select the visibility of the OSD menu when it is invoked. Press the menu button to enter the adjustment menu. Press the up/down button to select increase/decrease the value then press the setup button to adjust. The value 100 shows a fully visible and opaque OSD menu. The default value is **75**.

Note: The **Transparency** value must be divisible by 5 (i.e., 5, 10, 15, 20... and so on).

System Setting

Use this screen to configure the VS482 system settings.



1. Use the drop-down menu to set up which EDID mode the VS482 uses. See *EDID Commands*, page 21 for more details.

Auto
Port 1
Default

2. Use the drop-down menu to select how the video source's CEC is applied. See *CEC Commands*, page 22 for more details.

Off
Auto
Port 1

3. Set this to **On** to have the VS482 return to default settings when it is reset. Otherwise, select **Off**.

On
Off

4. This read-only field shows the firmware version of the VS482.

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Appendix

Safety Instructions

General

- Read all of these instructions. Save them for future reference.
- Follow all warnings and instructions marked on the device.
- Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- Do not use the device near water.
- Do not place the device near, or over, radiators or heat registers.
- The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- Never spill liquid of any kind on the device.
- Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- The device is designed for IT power distribution systems with 230V phase-to-phase voltage.
- To prevent damage to your installation it is important that all devices are properly grounded.
- The device is equipped with a DC adapter. This is a safety feature.
- To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or un-interruptible power supply (UPS).
- Position system cables and power cables carefully; Be sure that nothing rests on any cables.

- Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.
- If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.
  - Liquid has been spilled into the device.
  - The device has been exposed to rain or water.
  - The device has been dropped, or the cabinet has been damaged.
  - The device exhibits a distinct change in performance, indicating a need for service.
  - The device does not operate normally when the operating instructions are followed.
- Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

Rack Mounting

- Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.
- Always load the rack from the bottom up, and load the heaviest item in the rack first.
- Make sure that the rack is level and stable before extending a device from the rack.
- Use caution when pressing the device rail release latches and sliding a device into or out of a rack; the slide rails can pinch your fingers.
- After a device is inserted into the rack, carefully extend the rail into a locking position, and then slide the device into the rack.
- Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.
- Make sure that all equipment used on the rack – including power strips and other electrical connectors – is properly grounded.
- Ensure that proper airflow is provided to devices in the rack.
- Ensure that the operating ambient temperature of the rack environment does not exceed the maximum ambient temperature specified for the equipment by the manufacturer.
- Do not step on or stand on any device when servicing other devices in a rack.

Technical Support

International

- For online technical support – including troubleshooting, documentation, and software updates: **http://eservice.aten.com**
- For telephone support, see *Telephone Support*, page iii:

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	http://www.aten-usa.com/support
Telephone Support		1-888-999-ATEN ext 4988

When you contact us, please have the following information ready beforehand:

- Product model number, serial number, and date of purchase.
- Your computer configuration, including operating system, revision level, expansion cards, and software.
- Any error messages displayed at the time the error occurred.
- The sequence of operations that led up to the error.
- Any other information you feel may be of help.

Specifications

Function			VS482
Display Connections			2
Connectors	Device	HDMI In	4 x HDMI Type A Female (Black)
	Display	HDMI Out	2 x HDMI Type A Female (Black)
	Optical Audio		1 x Toslink (Black)
	Coaxial Audio		1 x RCA (Orange)
	Stereo Audio		2 x RCA (Red / White)
	RS-232 Port		1 x DB-9 Female (Black)
	Power		1 x DC Jack
	IR Extension Port		1 x 3.5mm phone jack
Switches	Port Switch		4
	ARC Selection		1
	Power Button		1
LEDs	Selected		4 (Green)
	ARC Selected		1 (Blue)
	Power		1 (Green / Orange)
IR Control			1
Video			HDTV resolutions of 480p, 720p, 1080i, 1080p (1920x1080); WUXGA (1920 x 1200)
Power Consumption			DC 5.3V, 6.95W
Environment	Operating Temp.		0–50ºC
	Storage Temp.		-20–60ºC
	Humidity		0–80% RH, Non-condensing
Physical Properties	Housing		Metal
	Weight		2.16 Kg
	Dimensions (L x W x H)		43.72 x 15.86 x 5.54 cm

Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or update. For further inquiries, please contact your direct vendor.